

(c) In any ballast condition during any part of a voyage, including that of lightweight with only segregated ballast, each tank vessel under paragraph (b) of this section must have the capability of meeting each of the following:

(1) The molded draft amidship (dm) in meters, without taking into account vessel deformation, must not be less than dm in the following mathematical relationship:

$$dm = 2.0 + 0.02L$$

(2) The drafts at the forward and after perpendiculars must correspond to those determined by the draft amidship under paragraph (c)(1) of this section, in association with a trim by the stern of no more than 0.015L.

(3) The minimum draft at the after perpendicular is that which is necessary to obtain full immersion of the propeller.

(d) Segregated ballast tanks required in paragraph (b) of this section, voids, and other spaces that do not carry cargo must be distributed:

(1) For a vessel to which § 157.10d applies, in accordance with § 157.10d(c)(4); or,

(2) For a vessel to which § 157.10d does not apply, in accordance with the procedure contained in appendix C to this part.

(e) Each tank vessel under this section of 20,000 DWT or more that carries crude oil must have a crude oil washing system that meets the design, equipment, and installation requirements in Subpart D of this part.

(f) Each tank vessel under this section may be designed to carry ballast water in cargo tanks as allowed under § 157.35.

[CGD 77-058b, 45 FR 43707, June 30, 1980, as amended by CGD 90-051, 57 FR 36239, Aug. 12, 1992]

§ 157.10a Segregated ballast tanks, crude oil washing systems, and dedicated clean ballast tanks for certain new and existing vessels of 40,000 DWT or more.

(a) An existing vessel of 40,000 DWT or more that carries crude oil and a new vessel of 40,000 DWT or more but less than 70,000 DWT that carries crude oil must have:

(1) Segregated ballast tanks with a total capacity to meet the draft and

trim requirements in paragraph (d) of this section; or

(2) A crude oil washing system that meets the design, equipment, and installation requirements of Subpart D of this part.

(b) [Reserved]

(c) An existing vessel of 40,000 DWT or more that carries products and a new vessel of 40,000 DWT or more but less than 70,000 DWT that carries products must have:

(1) Segregated ballast tanks with a total capacity to meet the draft and trim requirements in paragraph (d) of this section; or

(2) Dedicated clean ballast tanks that have a total capacity to meet the draft and trim requirements in paragraph (d) of this section and that meet the design and equipment requirements under Subpart E of this part.

(d) In any ballast condition during any part of a voyage, including that of lightweight with either segregated ballast in segregated ballast tanks or clean ballast in dedicated clean ballast tanks, each tank vessel under paragraph (a)(1), or (c) of this section must have the capability of meeting each of the following without recourse to the use of cargo tanks for water ballast:

(1) The molded draft amidship (dm) in meters, without taking into account vessel deformation, must not be less than dm in the following mathematical relationship:

$$dm = 2.0 + 0.02L$$

(2) The drafts at the forward and after perpendiculars must correspond to those determined by the draft amidship under paragraph (d)(1) of this section, in association with a trim by the stern of no more than 0.015L.

(3) The minimum draft at the after perpendicular is that which is necessary to obtain full immersion of the propeller.

(e) Each tank vessel that meets paragraph (a)(1), or (c) of this section may be designed to carry ballast water in cargo tanks as allowed under § 157.35.

NOTE: Segregated ballast tanks located in wing tanks provide protection against oil

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outflow in the event of a collision, ramming, or grounding.

[CGD 77-058b, 45 FR 43707, June 30, 1980, as amended by CGD 82-28, 50 FR 11626, Mar. 22, 1985; USCG-1998-3799, 63 FR 35531, June 30, 1998]

§ 157.10b Segregated ballast tanks, dedicated clean ballast tanks, and special ballast arrangements for tank vessels transporting Outer Continental Shelf oil.

(a) Each tank vessel that is engaged in the transfer of crude oil from an off-shore oil exploitation or production facility on the Outer Continental Shelf of the United States on or after June 1, 1980 must, if segregated ballast tanks or dedicated clean ballast tanks are not required under §157.09, §157.10 or §157.10a, have one of the following:

(1) Segregated ballast tanks with a total capacity to meet the draft and trim requirements in paragraph (b) of this section.

(2) Dedicated clean ballast tanks having a total capacity to meet the draft and trim requirements in paragraph (b) of this section and meeting the design and equipment requirements under Subpart E of this part.

(3) Special ballast arrangements acceptable to the Coast Guard.

(b) In any ballast condition during any part of a voyage, including that of lightweight with either segregated ballast in segregated ballast tanks or clean ballast in dedicated clean ballast tanks, each vessel under paragraph (a)(1) or (a)(2) of this section must have the capability of meeting each of the following:

(1) The molded draft amidship (dm), in meters, without taking into account vessel deformation, must not be less than “dm” in the following mathematical relationship:

$dm = 2.00 + 0.020L$ for vessels of 150 meters or more in length

$dm = 1.25 + 0.025L$ for vessels less than 150 meters in length

(2) The drafts, in meters, at the forward and after perpendiculars must correspond to those determined by the draft amidship under paragraph (b)(1) of this section, in association with a trim, in meters, by the stern (t) of no more than “t” in the following mathematical relationship:

$t = 0.015L$ for vessels of 150 meters or more in length

$t = 1.5 + 0.005L$ for vessels less than 150 meters in length

(3) The minimum draft at the after perpendicular is that which is necessary to obtain full immersion of the propeller.

(c) Special ballast arrangements are accepted under the procedures in paragraph (d) of this section if:

(1) The vessel is dedicated to one specific route;

(2) Each offshore transfer facility on the route is less than 50 miles from shore;

(3) The duration of the ballast voyage is less than 10 hours;

(4) They prevent the mixing of ballast water and oil; and

(5) They provide suitable draft and trim to allow for the safe navigation of the vessel on the intended route.

(d) The owner or operator of a vessel that meets paragraph (c) of this section must apply for acceptance of the special ballast arrangement, in writing, to the Officer in Charge, Marine Inspection, of the zone in which the vessel operates. The application must contain:

(1) The specific route on which the vessel would operate;

(2) The type of ballast to be carried;

(3) The location of the ballast on the vessel;

(4) Calculations of draft and trim for maximum ballast conditions; and

(5) The associated operating requirements or limitations necessary to ensure safe navigation of the vessel.

NOTE: Operating requirements or limitations necessary to ensure safe navigation of the vessel could include (but are not limited to) weather conditions under which the vessel would not operate and weather conditions under which cargo would be carried in certain cargo tanks on the ballast voyage.

(e) The Coast Guard will inform each applicant for special ballast arrangements under paragraph (d) of this section whether or not the arrangements are accepted. If they are not accepted, the reasons why they are not accepted will be stated.

(f) Each tank vessel under this section may be designed to carry ballast